



## Complete Summary

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### GUIDELINE TITLE

Hydrocele. In: Guidelines on paediatric urology.

### BIBLIOGRAPHIC SOURCE(S)

Hydrocele. In: Tekgul S, Riedmiller H, Gerharz E, Hoebeke P, Kocvara R, Nijman R, Radmayr C, Stein R. Guidelines on paediatric urology. Arnhem, The Netherlands: European Association of Urology, European Society for Paediatric Urology; 2008 Mar. p. 12. [6 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

SCOPE  
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CATEGORIES  
IDENTIFYING INFORMATION AND AVAILABILITY  
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## SCOPE

### DISEASE/CONDITION(S)

Hydrocele

### GUIDELINE CATEGORY

Diagnosis  
Treatment

### CLINICAL SPECIALTY

Pediatrics  
Surgery  
Urology

## **INTENDED USERS**

Physicians

## **GUIDELINE OBJECTIVE(S)**

- To outline a practical and preliminary approach to paediatric urological problems
- To increase the quality of care for children with urological problems

## **TARGET POPULATION**

Children and adolescents with communicating or non-communicating hydroceles

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Diagnosis**

1. History
2. Physical examination
3. Scrotal transillumination
4. Scrotal ultrasound/Doppler ultrasound

### **Treatment**

1. No treatment
2. Early treatment
3. Surgical correction
4. Sclerosing agents (considered but not recommended)

## **MAJOR OUTCOMES CONSIDERED**

- Sensitivity of Doppler ultrasound in detecting intrascrotal lesions
- Rate of spontaneous resolution
- Rate of testicular damage

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

The guidelines were based on current literature following a systematic review using MEDLINE.

### **NUMBER OF SOURCE DOCUMENTS**

Not stated

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Given)

### **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

#### **Levels of Evidence**

**1a** Evidence obtained from meta-analysis of randomized trials

**1b** Evidence obtained from at least one randomized trial

**2a** Evidence obtained from at least one well-designed controlled study without randomization

**2b** Evidence obtained from at least one other type of well-designed quasi-experimental study

**3** Evidence obtained from well-designed non-experimental studies, such as comparative studies, correlation studies and case reports

**4** Evidence obtained from expert committee reports or opinions or clinical experience of respected authorities

### **METHODS USED TO ANALYZE THE EVIDENCE**

Systematic Review

### **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Application of a structured analysis of the literature was not possible due to a lack of well-designed studies. Whenever possible, statements have been classified in terms of level of evidence and grade of recommendation. Due to the limited availability of large randomized controlled trials – influenced also by the fact that a considerable number of treatment options relate to surgical interventions on a large spectrum of different congenital problems – this document is therefore largely a consensus document.

### **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

### **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

- The first step in the European Association of Urology (EAU) guidelines procedure is to define the main topic.

- The second step is to establish a working group. The working groups comprise about 4-8 members, from several countries. Most of the working group members are academic urologists with a special interest in the topic. In general, general practitioners or patient representatives are not part of the working groups. A chairman leads each group. A collaborative working group consisting of members representing the European Society for Paediatric Urology (ESPU) and the EAU has gathered in an effort to produce the current update of the paediatric urology guidelines.
- The third step is to collect and evaluate the underlying evidence from the published literature.
- The fourth step is to structure and present the information. The strength of the recommendation is clearly marked in three grades (A-C), depending on the evidence source upon which the recommendation is based. Every possible effort is made to make the linkage between the level of evidence and grade of recommendation as transparent as possible.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

### **Grades of Recommendation**

- A. Based on clinical studies of good quality and consistency addressing the specific recommendations and including at least one randomized trial
- B. Based on well-conducted clinical studies, but without randomized clinical studies
- C. Made despite the absence of directly applicable clinical studies of good quality

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **METHOD OF GUIDELINE VALIDATION**

Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

There is no formal external review prior to publication.

The Appraisal of Guidelines for Research and Evaluation (AGREE) instrument was used to analyse and assess a range of specific attributes contributing to the validity of a specific clinical guideline.

The AGREE instrument, to be used by two to four appraisers, was developed by the AGREE collaboration ([www.agreecollaboration.org](http://www.agreecollaboration.org)) using referenced sources for the evaluation of specific guidelines. (See the "Availability of Companion Documents" field for further methodology information).

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

Levels of evidence (**1a-4**) and grades of recommendation (**A-C**) are defined at the end of the "Major Recommendations" field.

#### Diagnosis

The classic description of a communicating hydrocele is that of a hydrocele that vacillates in size, usually related to activity. It may be diagnosed by history; physical investigation and transillumination of the scrotum make the diagnosis in the majority of cases. If the diagnosis is that of a hydrocele, there will be no history of reducibility and no associated symptoms; the swelling is translucent, smooth and usually non-tender. If there are any doubts about the character of an intrascrotal mass, scrotal ultrasound should be performed and has nearly 100% sensitivity in detecting intrascrotal lesions. Doppler ultrasound studies help to distinguish hydroceles from varicocele and testicular torsion, although these conditions may also be accompanied by a hydrocele.

#### Treatment

In the majority of infants, the surgical treatment of hydrocele is not indicated within the first 12-24 months because of the tendency for spontaneous resolution (**level of evidence: 4, grade C recommendation**). Early surgery is indicated if there is suspicion of a concomitant inguinal hernia or underlying testicular pathology. The question of contralateral disease should be addressed by both history and examination at the time of initial consultation. Persistence of a simple scrotal hydrocele beyond 24 months of age may be an indication for surgical correction. However, there is no evidence that this type of hydrocele risks testicular damage. In the paediatric age group, the operation consists of ligation of patent processus vaginalis via inguinal incision and the distal stump is left open, whereas in hydrocele of the cord the cystic mass is excised or unroofed (**level of evidence: 4, grade C recommendation**). In expert hands, the incidence of testicular damage during hydrocele or inguinal hernia repair is very low (0.3%) (**level of evidence: 3, grade B recommendation**). Sclerosing agents should not be used because of the risk of chemical peritonitis in communicating processus vaginalis peritonei (**level of evidence: 4, grade C recommendation**). The scrotal approach (Lord or Jaboulay technique) is used in the treatment of a secondary non-communicating hydrocele.

#### Definitions:

##### Levels of Evidence

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### **CLINICAL ALGORITHM(S)**

None provided

## **EVIDENCE SUPPORTING THE RECOMMENDATIONS**

### **TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS**

The type of supporting evidence is identified and graded for some of the recommendations (see "Major Recommendations" field).

## **BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS**

### **POTENTIAL BENEFITS**

Appropriate diagnosis and treatment of hydrocele

### **POTENTIAL HARMS**

The incidence of testicular damage during hydrocele or inguinal hernia repair is very low (0.3%).

## **QUALIFYING STATEMENTS**

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The purpose of these texts is not to be proscriptive in the way a clinician should treat a patient but rather to provide access to the best contemporaneous consensus view on the most appropriate management currently available. European Association of Urology (EAU) guidelines are not meant to be legal documents but are produced with the ultimate aim to help urologists with their day-to-day practice.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

The European Association of Urology (EAU) Guidelines long version (containing all 19 guidelines) is reprinted annually in one book. Each text is dated. This means that if the latest edition of the book is read, one will know that this is the most updated version available. The same text is also made available on a CD (with hyperlinks to PubMed for most references) and posted on the EAU websites Uroweb and Urosource ([www.uroweb.org/professional-resources/guidelines/](http://www.uroweb.org/professional-resources/guidelines/) & <http://www.urosource.com/diseases/>).

Condensed pocket versions, containing mainly flow-charts and summaries, are also printed annually. All these publications are distributed free of charge to all (more than 10,000) members of the Association. Abridged versions of the guidelines are published in European Urology as original papers. Furthermore, many important websites list links to the relevant EAU guidelines sections on the association websites and all, or individual, guidelines have been translated to some 15 languages.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

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### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2008 Mar

### GUIDELINE DEVELOPER(S)

European Association of Urology - Medical Specialty Society  
European Society for Paediatric Urology - Medical Specialty Society

## **SOURCE(S) OF FUNDING**

European Association of Urology

## **GUIDELINE COMMITTEE**

Not stated

## **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

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## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

All members of the working group submit a conflict of interest form. The information is kept on file in the European Association of Urology (EAU) Central Office database. This guidelines document was developed with the financial support of the EAU. No external sources of funding and support have been involved. The EAU is a non-profit organisation and funding is limited to administrative assistance, travel, and meeting expenses. No honoraria or other reimbursements have been provided.

## **GUIDELINE STATUS**

This is the current release of the guideline.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available in Portable Document Format (PDF) from the [European Association of Urology Web site](#).

Print copies: Available from the European Association of Urology, PO Box 30016, NL-6803, AA ARNHEM, The Netherlands.

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- EAU guidelines office template. Arnhem, The Netherlands: European Association of Urology (EAU); 2007. 4 p.
- The European Association of Urology (EAU) guidelines methodology: a critical evaluation. Arnhem, The Netherlands: European Association of Urology (EAU); 18 p.

Print copies: Available from the European Association of Urology, PO Box 30016, NL-6803, AA ARNHEM, The Netherlands.



## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was completed by ECRI Institute on November 14, 2008. The information was verified by the guideline developer on December 19, 2008.

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